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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HUBER, PAUL W

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 04/30/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,022

Applicant(s)

ANDERSSON ET AL.

Examiner

Paul Huber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 9-12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima et al (USP-5,446,722).

Kojima et al discloses an information recording apparatus (see figure 4), comprising: a vacuum chamber (the two side surfaces and bottom surface of element 11); an energy beam generator 1 partially enclosed in the vacuum chamber for emitting an energy beam for recording information on a recording medium 4; a spindle 16a disposed in the vacuum chamber for rotating the recording medium 4, the spindle 16a being driven to rotate by a spindle motor 16b; a holder, consisting of a movable holder part 13 and a stationary holder part 12, disposed in the vacuum chamber for carrying the spindle motor 16b and the spindle 16a; a feed motor unit, (e.g., "any suitable means such as a conventional screw mechanism", col. 3, lines 56-57), connected to the movable holder part 13 for linearly moving the spindle 16a in a vacuum atmosphere within the vacuum chamber, and a common base member (top surface of element 11), wherein the holder, the vacuum chamber, and the energy beam generator 1 are fixed with respect to each other to the common base member. Note: the applicant's disclosed vacuum chamber 1 has as its top surface a common base member 6.

Regarding claim 2, the common base member (top surface of element 11) has the shape of a plate.

Regarding claim 3, the vacuum chamber (the two side surfaces and bottom surface of element 11) and the energy beam generator 1 are fixed to the common base member (top surface of element 11) from opposite sides thereof.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima (USP-5,686,941).

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Kojima discloses an information recording apparatus (see figure 1), comprising: a vacuum chamber (the two side surfaces and bottom surface of element 10); an energy beam generator 11 partially enclosed in the vacuum chamber for emitting an energy beam for recording information on a recording medium; a spindle 1 disposed in the vacuum chamber for rotating the recording medium, the spindle 1 being driven to rotate by a spindle motor 13; a holder, consisting of a movable holder part 12 and a stationary holder part, disposed in the vacuum chamber for carrying the spindle motor 13 and the spindle 1; a feed motor unit (screw mechanism) connected to the movable holder part 12 for linearly moving the spindle 1 in a vacuum atmosphere within the vacuum chamber, and a common base member (top surface of element 10), wherein the holder, the vacuum chamber, and the energy beam generator 11 are fixed with respect to each other to the common base member. Note: the applicant's disclosed vacuum chamber 1 has as its top surface a common base member 6.

Regarding claim 2, the common base member (top surface of element 10) has the shape of a plate.

Regarding claim 3, the vacuum chamber (the two side surfaces and bottom surface of element 10) and the energy beam generator 11 are fixed to the common base member (top surface of element 10) from opposite sides thereof.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al (USP-5,446,722) considered with Kojima (USP-5,686,941).

Kojima et al discloses the invention as claimed, including a holder which defines an atmospheric chamber enclosing the spindle motor 16b, the spindle 16a extending from the spindle motor 16b into the vacuum chamber.

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However, Kojima et al fails to specifically teach that the spindle 16a extends from the spindle motor 16b into the vacuum chamber through a magnetic fluid seal producing means as claimed. Kojima discloses a "magnetic fluid seal producing device [which] is provided around the spindle close to the vacuum chamber side" (abstract), in the same field of endeavor, for the purpose of "prevent[ing] the outside atmosphere on the air bearing side from leaking toward the vacuum side. Thus, the vacuum chamber 10 is exactly sealed off from the outside atmosphere." (col. 3, lines 61-65).


It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kojima et al such that the spindle 16a extends from the spindle motor 16b into the vacuum chamber through a magnetic fluid seal producing means as claimed and as taught by Kojima. A practitioner in the art would have been motivated to do this for the purpose of ensuring that the vacuum chamber is exactly sealed off from the atmospheric chamber enclosing the spindle motor 16b.

Note: since the element 13 is a magnetic casing for preventing magnetic fields of the motor from leaking outward into the vacuum chamber, it is inherent that the spindle 16a comprises a spindle portion of essentially non-magnetic material extending from the magnetic seal producing means into the vacuum chamber as claimed. Furthermore, Kojima discloses that the spindle includes a surface portion of magnetic material 31, 33 on a level with the magnetic seal producing means as claimed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kojima '916, Igarashi, and Reisner et al each disclose a recording apparatus including a vacuum chamber.

Claims 4-7 and 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 703-308-1549.


Paul Huber
Primary Examiner
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